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Chemistry Platform of Polymer Blend

Ligand Functionalized
Dextran

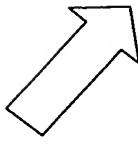
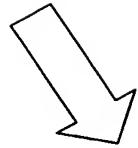
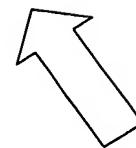


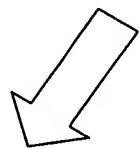
Photo-linker Modified
Dextran



Blend



Un-modified Dextran



Fluorescent Labelled-
Dextran

- ❖ Un-modified dextran (as a diluent of ligand functionalized dextran and/or photo-linker modified dextran to adjust ligand and cross-linker density)
- ❖ Fluorescence labeled-dextran

Figure 1

Title: PHOTOCROSSLINKED
HYDROGEL BLEND SURFACE
COATINGS
Inventor(s): Pil-je Um et al.
DOCKET NO.: 035394-0256

Synthesis of Photocross-linkable Monomer

Title: PHOTOCROSSLINKED
HYDROGEL BLEND SURFACE
COATINGS

Inventor(s): Pil-je Um et al.
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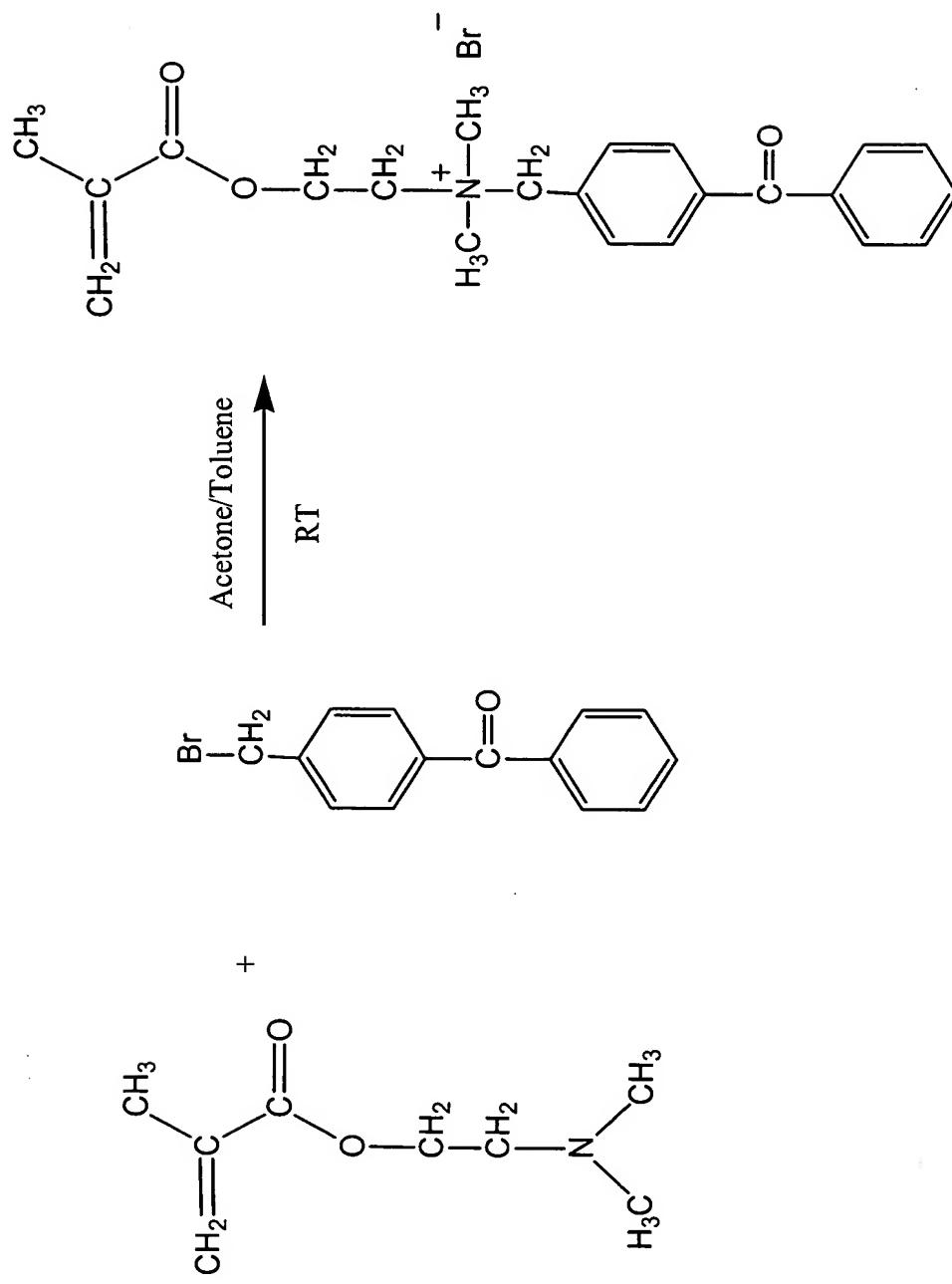


Figure 2

SAX-Copolymer Synthesis

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HYDROGEL BLEND SURFACE
COATINGS

Inventor(s): Pil-je Um et al.
DOCKET NO.: 035394-0256

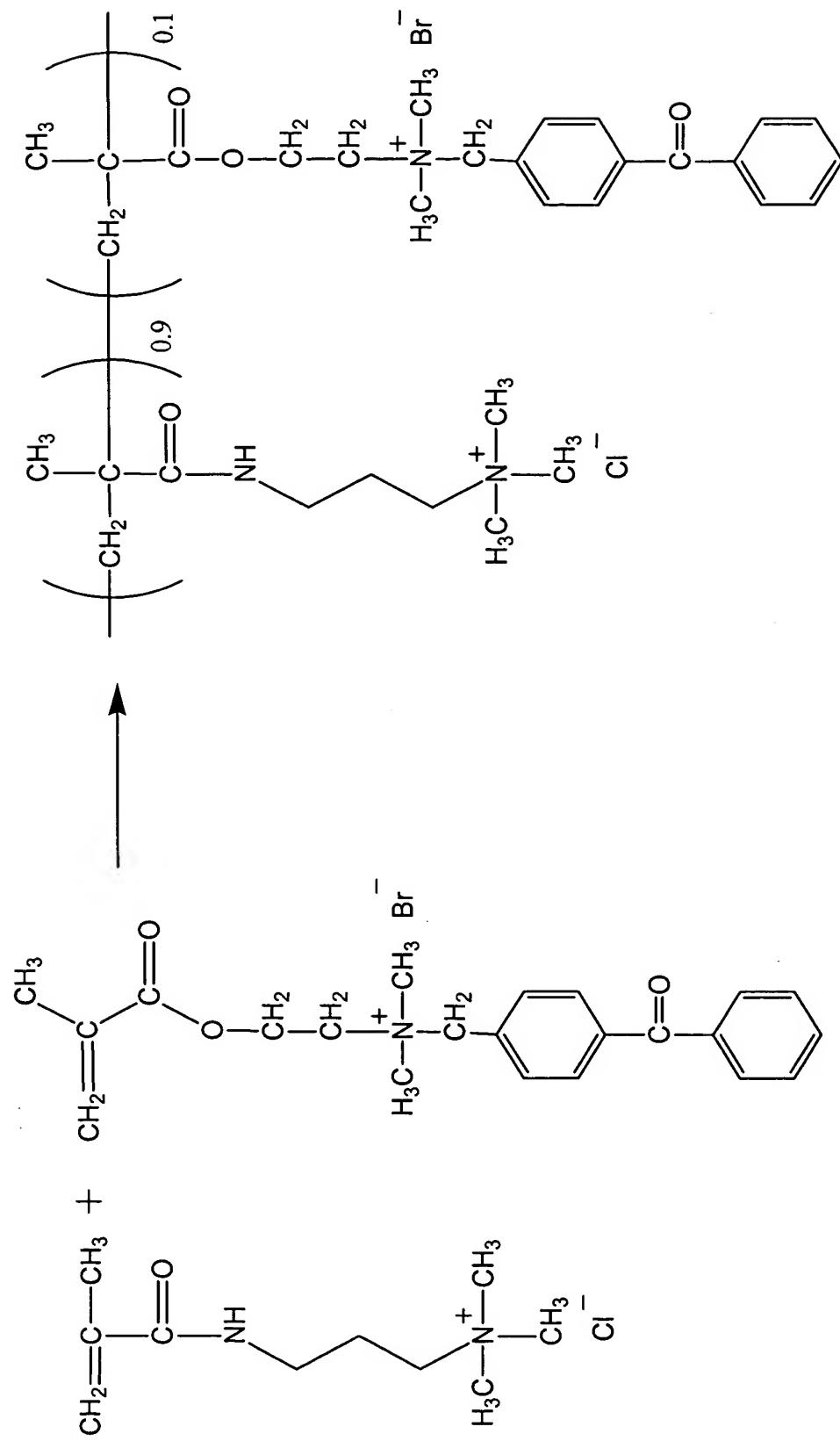


Figure 3

SELDI Spectra of 3 mol. % BP SAX Chip
Prepared by Blending (a) Low Mass Range (2-
30 kDa), (b) High Mass Range (30 -160 kDa)

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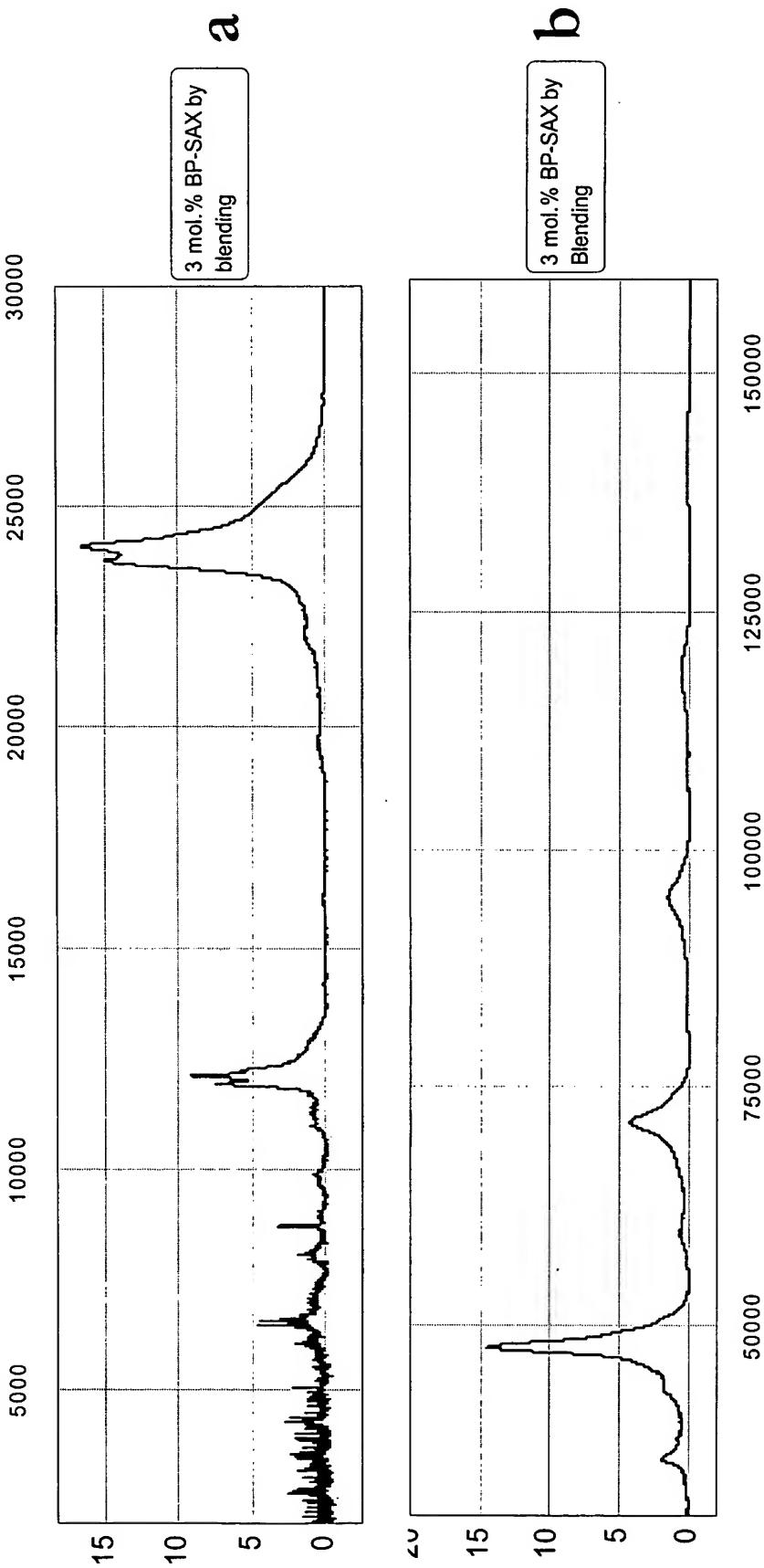


Figure 4

Derivatization of Dextran with Benzophenone

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Inventor(s): Pil-je Um et al.
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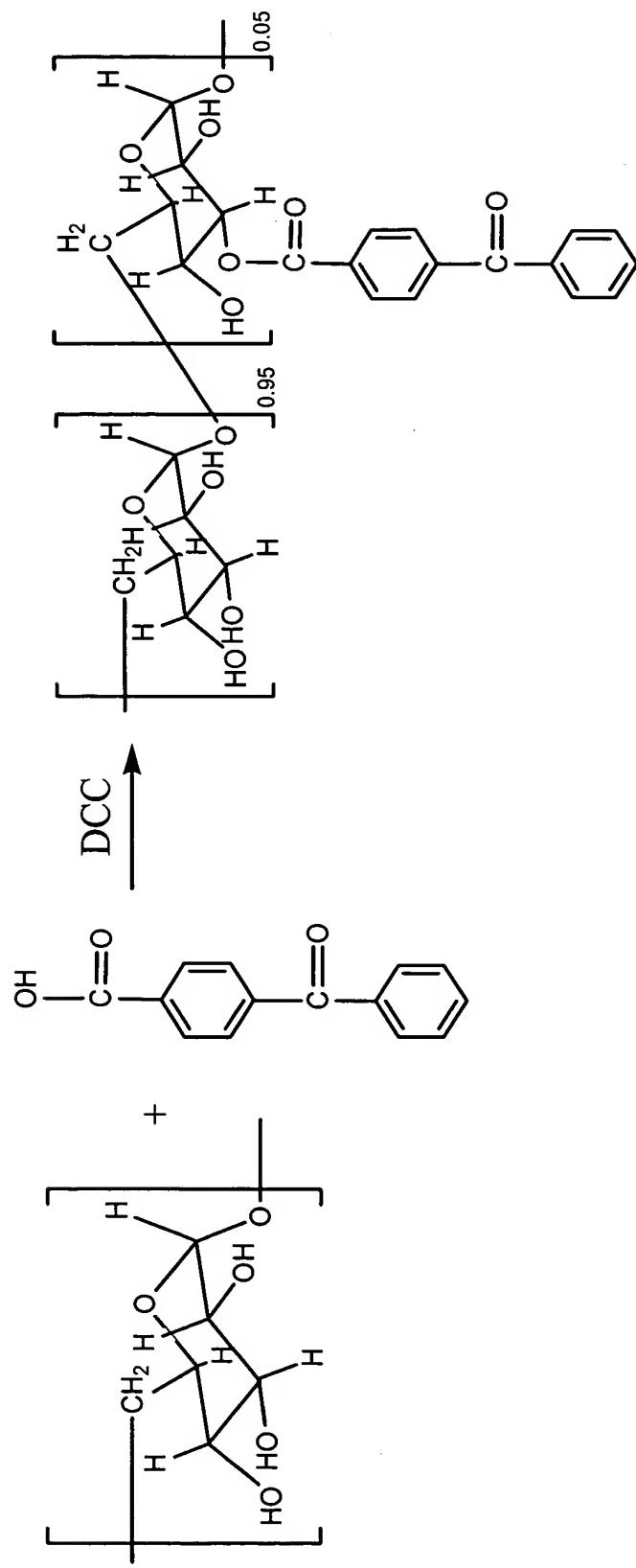


Figure 5

Synthesis of 4-(Glycidyloxy)benzophenone

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Inventor(s): Pil-je Um et al.
DOCKET NO.: 035394-0256

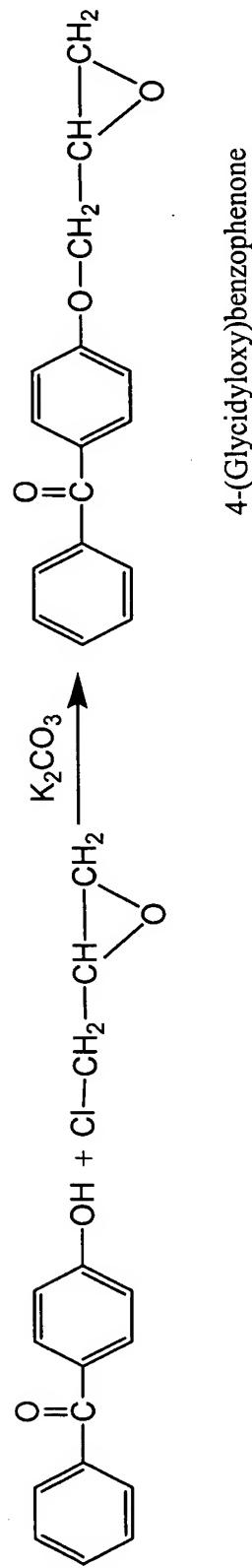


Figure 6

Derivatization of Dextran with Benzophenone

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Inventor(s): Pil-je Um et al.
DOCKET NO.: 035394-0256

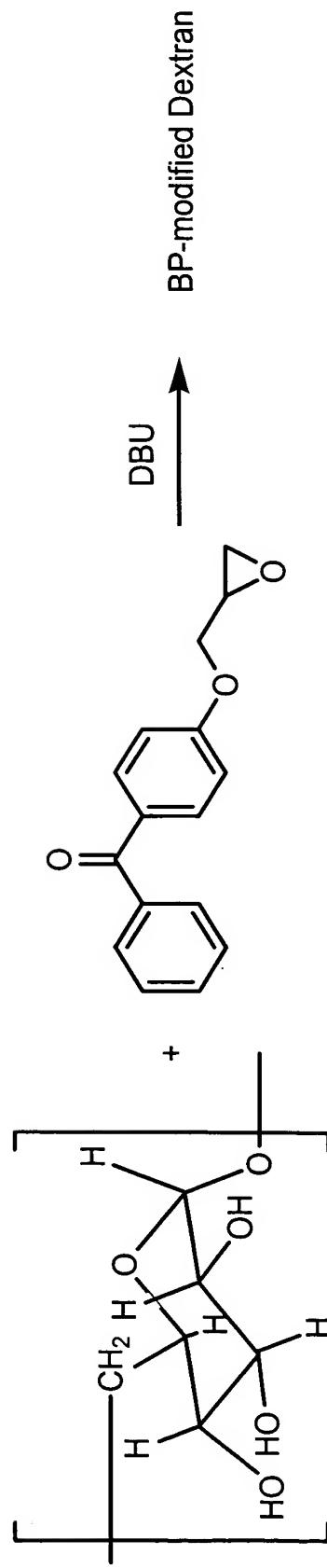


Figure 7

FTIR Spectra of (a) Dextran Hydrogel ; (b)
CDI-activated Dextran Hydrogel on Al chip

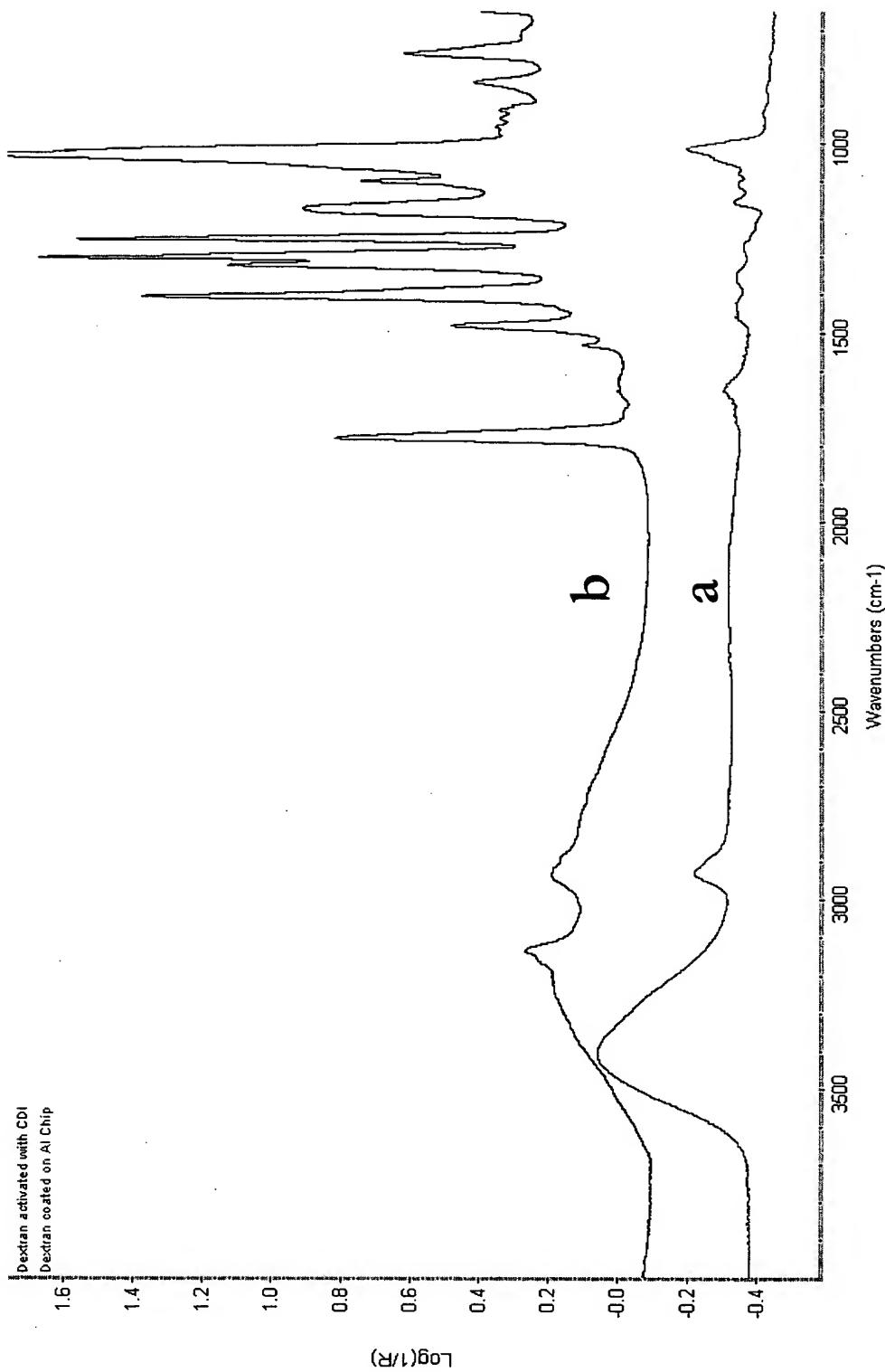


Figure 8

SELDI Spectrum of CDI-Dextran Chip Used for an Antibody-Antigen Recognition Study

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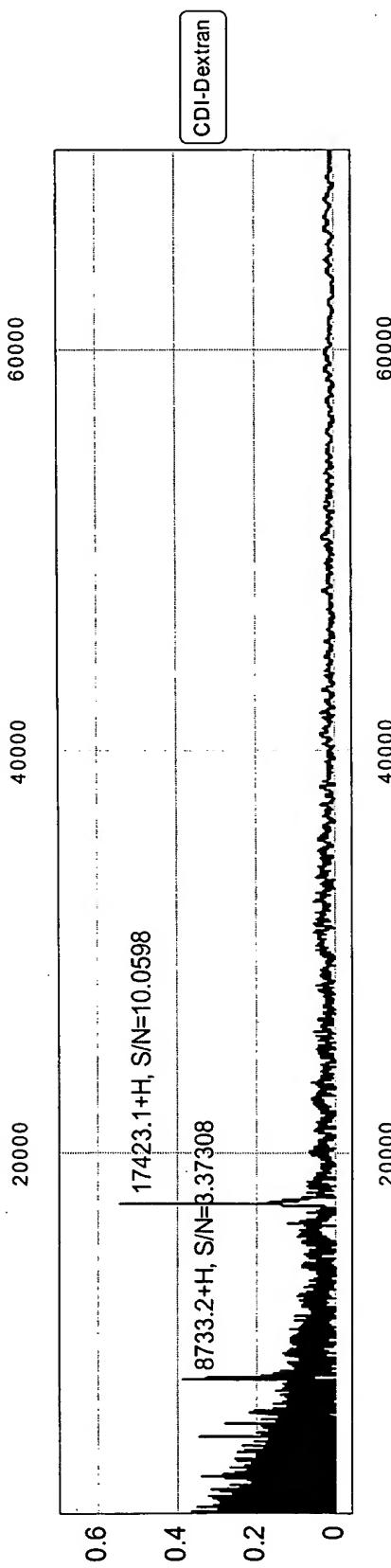


Figure 9

SELDI Spectra of DEAE Chip in the (a) Low Mass (2-20kDa), and (b) High Mass (20-160 kDa)

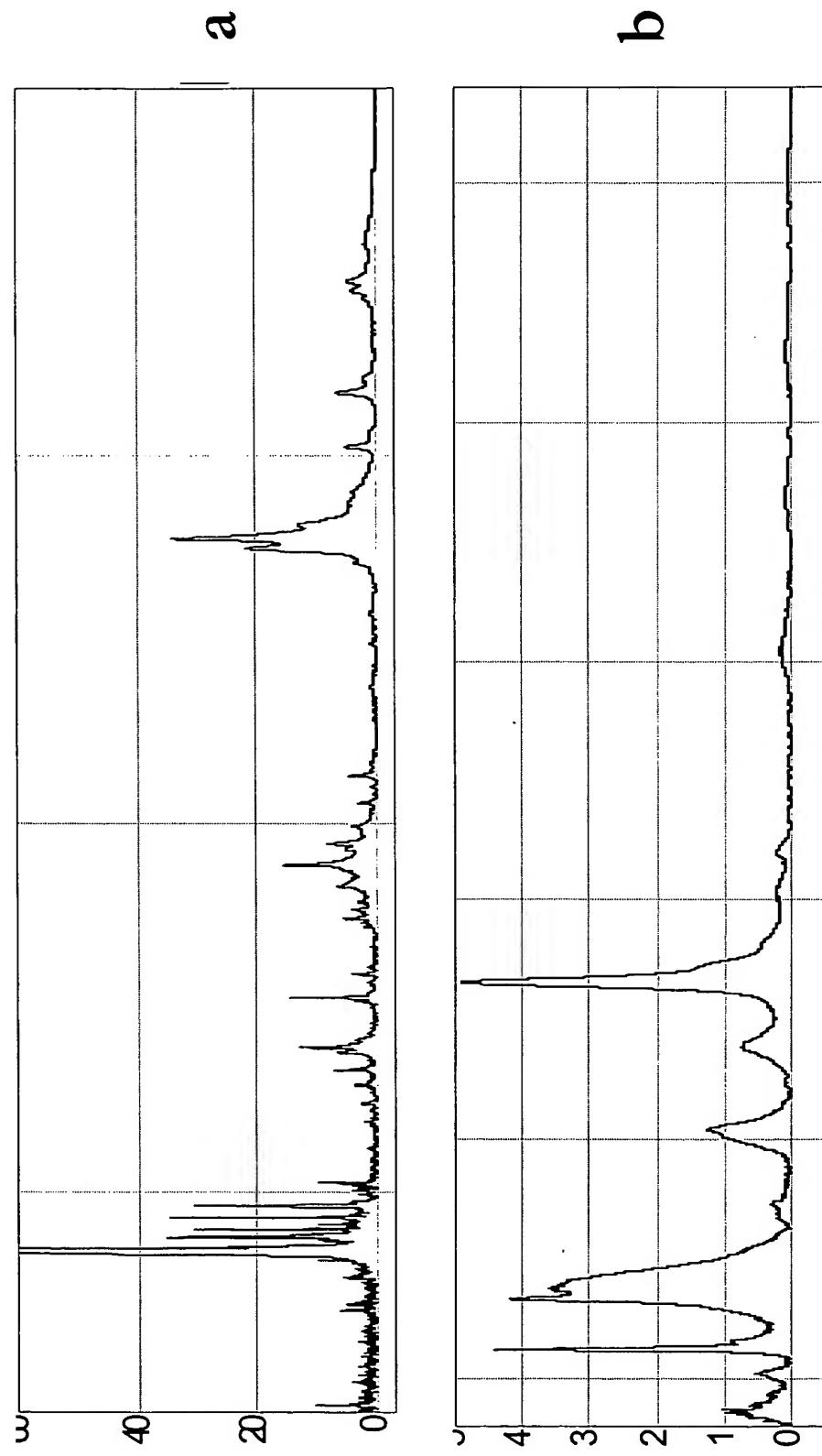
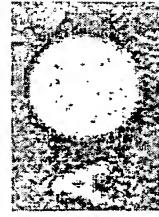
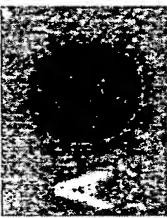


Figure 10

MEP Dyed with Ponceau S



Bare Substrate

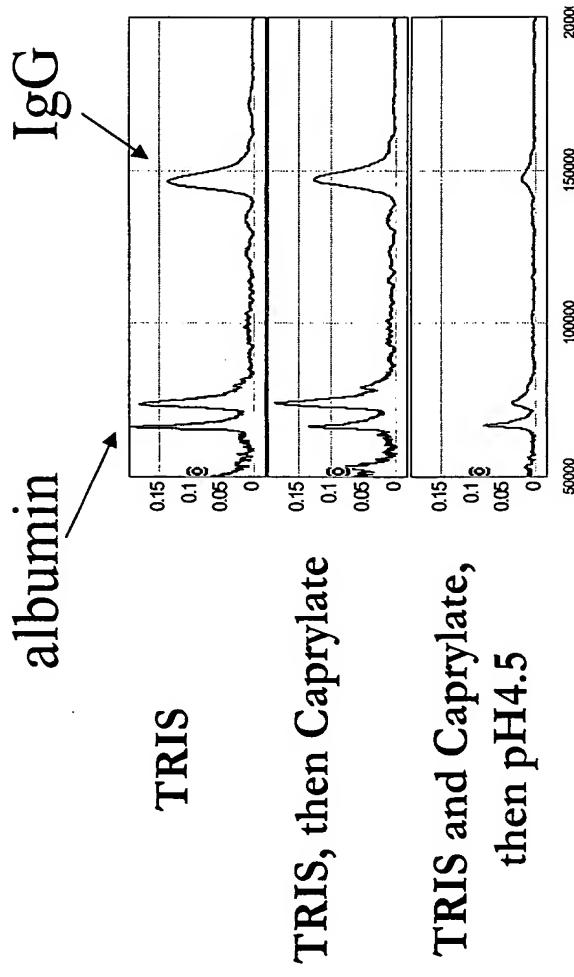


MEP Gel Coated

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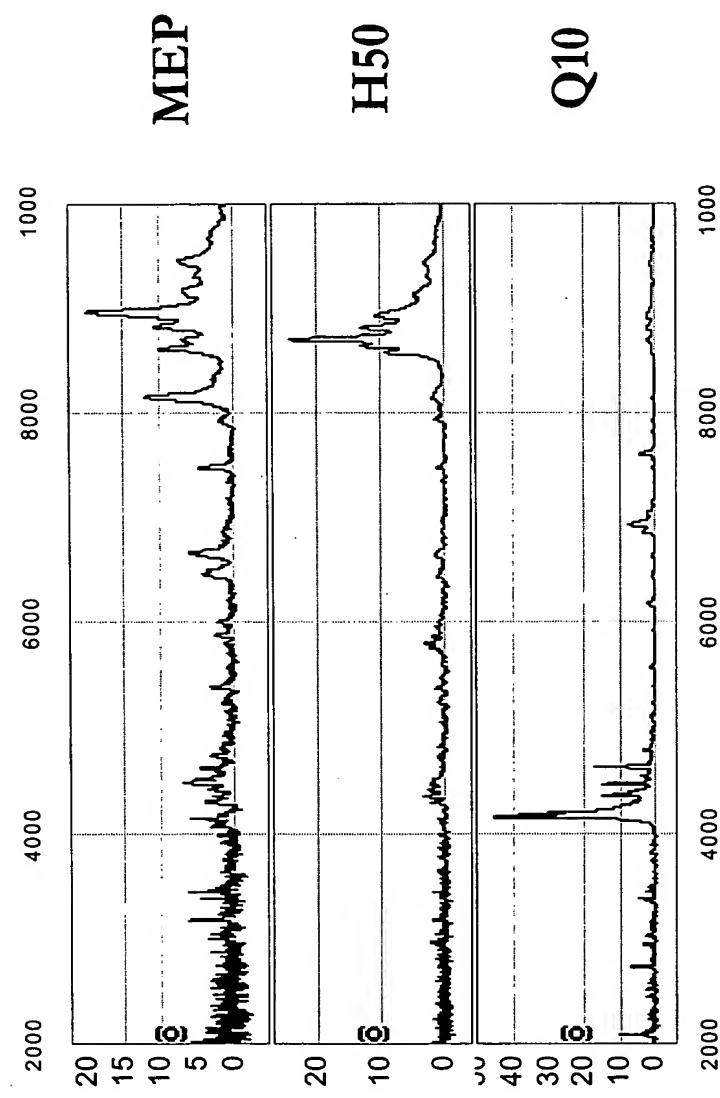
Selective Binding/Washing of IgG on MEP

- IgG is strongly bind to MEP Array at physiological condition, such as PBS (or TRIS) 7.2.
- Albumin is washed off little more with hydrophobic detergent like Caprylate.
- Then by lowering pH to 4.5 where MEP becomes charged, IgG is washed off.



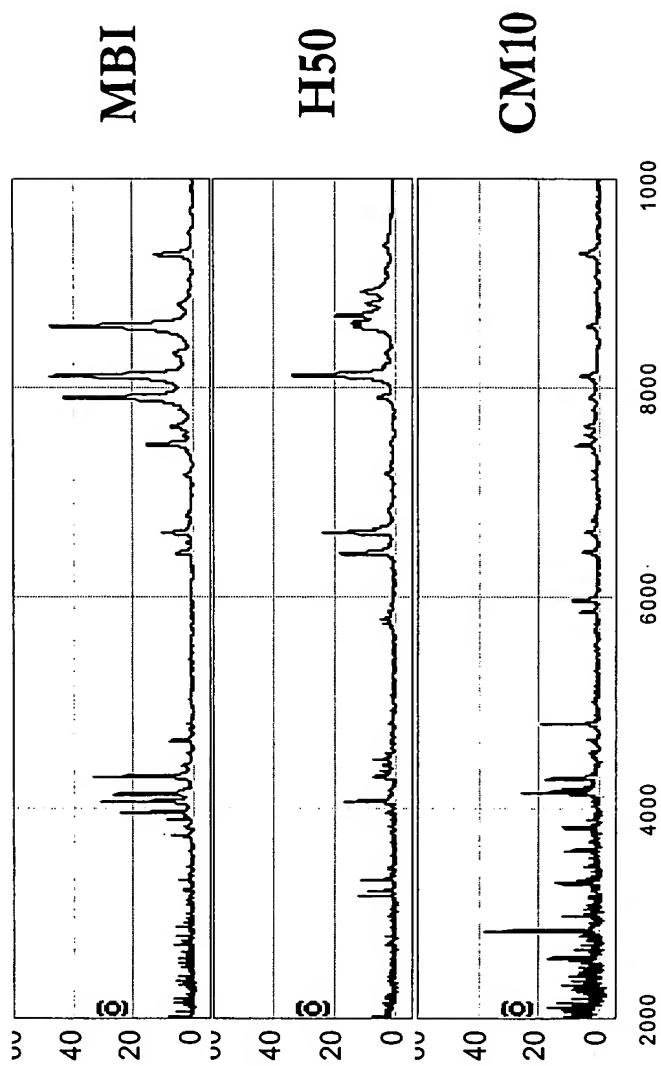
Profiling of Albumin Depleted Serum

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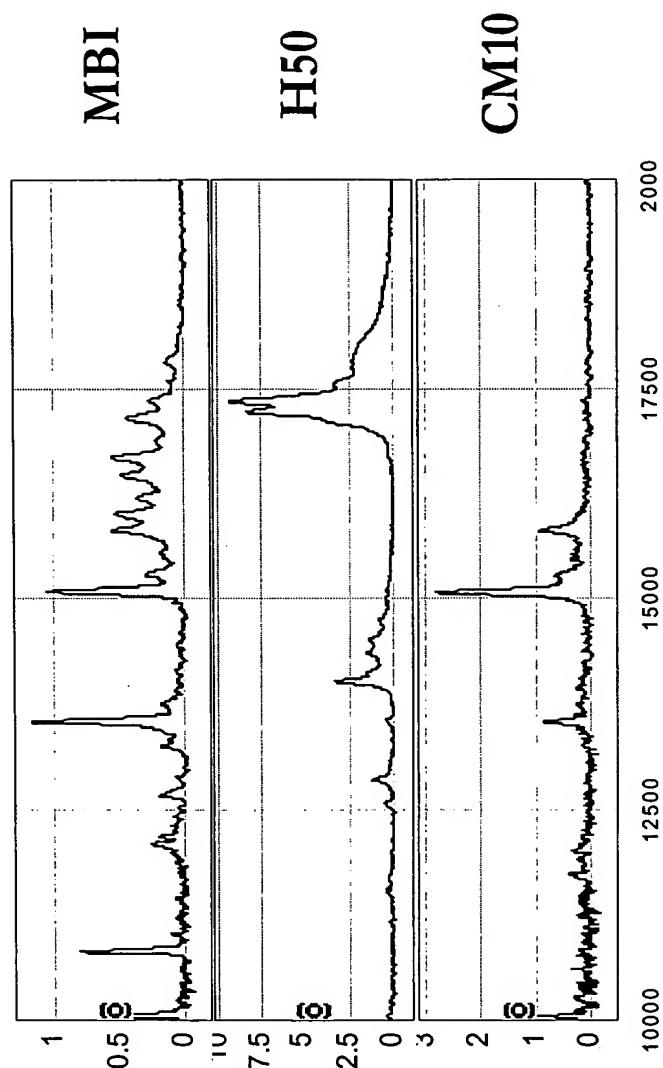


FIG. 15